

一 系统环境设置

1.1 网络配置

```
# cat /etc/sysconfig/network-scripts/ifcfg-em1
DEVICE=em1      #网卡名称
TYPE=Ethernet
ONBOOT=yes      #开机启动
NM_CONTROLLED=no
BOOTPROTO=none
IPADDR=10.0.1.159      #IP 地址
NETMASK=255.255.255.0 #子网掩码
GATEWAY=10.0.1.1      #网关
IPV6INIT=no
USERCTL=no
```

1.2 防火墙配置

查看防火墙 `iptables -L -n`
关闭防火墙 `service iptables stop`
关闭启动项 `chkconfig iptables off`
配置防火墙，请参看 <http://blog.chinaunix.net/uid-26495963-id-3279216.html>

1.3 配置开机自启动

`chkconfig 服务名称 on`
或者是将启动脚本加到/etc/rc.local 里面去
`#cat /etc/rc.local`
`bash /usr/sbin/scripts.sh`

二、安装基础环境

```
#yum install ntp telnet-server xinetd vsftpd ftp mod_wsgi  
gcc c++gcc-c++ libGL-devel wget curl
```

三、安装 QT

配置环境变量

```
#cat >> /etc/bashrc << EOF  
export QT_HOME=/opt/Qt5.5.0/5.5/gcc_64  
export PATH=$PATH:$QT_HOME/bin:$QT_HOME/lib  
EOF
```

四、安装 python2.7

4.1 安装过程略

开关

```
#source /opt/rh/python27/enable
```

五、安装 Django

```
source /opt/rh/python27/enable
```

```
cd /root/tools
tar xf Django-1.4.20.tar.gz
cd Django-1.4.20
python2.7 setup.py install
```

六 安装 Apache+WSGI

安装 apache2.4 python27-mod_wsgi
#yum install python27-mod_wsgi httpd24
配置

```
/opt/rh/httpd24/root/etc/httpd/conf.d/wsgi.conf
<VirtualHost *:80>
```

```
ServerName test.com
ServerAdmin admin@localhost
```

```
DocumentRoot "/var/www/html/HMWeb/HMWeb"
WSGIScriptAlias / "/var/www/html/HMWeb/HMWeb/wsgi.py"
```

```
<Directory "/var/www/html/HMWeb/HMWeb">
    <Files "wsgi.py">
        Require all granted
    </Files>
</Directory>
```

```
Alias /static/ /var/www/html/HMWeb/HMWeb/static/
<Directory "/var/www/html/HMWeb/HMWeb/static/">
    Require all granted
    IndexOptions FancyIndexing
</Directory>
</VirtualHost>
```

```
# cat /var/www/html/HMWeb/HMWeb/wsgi.py
import os
import sys
os.environ['DJANGO_SETTINGS_MODULE'] = 'HMWeb.settings'
#os.environ['PYTHON_EGG_CACHE'] = '/tmp/.python-eggs'
#current_dir = os.path.dirname(__file__)
current_dir = '/var/www/html/HMWeb'
if current_dir not in sys.path:
    sys.path.append(current_dir)
import django.core.handlers.wsgi
application = django.core.handlers.wsgi.WSGIHandler()
```

七、安装 mysql5.6

安装过程略

配置MySQL

```
#cat /etc/my.cnf
```

```
[client]
```

```
port=3306
```

```
socket=/var/lib/mysql/mysql.sock
```

```
default-character-set=utf8
```

```
#character_set_results=utf8
```

```
[mysqld]
```

```
port=3306
```

```
socket=/var/lib/mysql/mysql.sock
```

```
pid_file = /var/lib/mysql/mysql.pid
```

```
basedir=/var/lib/mysql/
```

```
datadir=/var/lib/mysql/data
```

```
character-set-server=utf8
```

```
default-storage-engine=INNODB
```

```
transaction_isolation = READ-COMMITTED
```

```
#sql-
mode="STRICT_TRANS_TABLES,NO_AUTO_CREATE_USER,NO_E
NGINE_SUBSTITUTION"
user=mysql
open_files_limit = 65535
```

```
##### Connection
#####
max_connections=5000
connect_timeout=300
interactive_timeout=1500
wait_timeout=1500
max_allowed_packet = 36M
slave_pending_jobs_size_max=64M
#thread_cache_size=400
back_log = 1000
max_connect_errors = 1000
```

```
#name-resolve
skip-name-resolve
skip-external-locking
skip-slave-start
```

```
#####
###
```

```
#Table
table_open_cache = 2048
table_definition_cache=2048
```

```
tmp_table_size = 246M
max_heap_table_size = 246M
```

```
#set timestamp(mysql 5.6)
explicit_defaults_for_timestamp=1
log_bin_trust_function_creators=1
```

```
##### log #####
```

```
#server_id=xxx
sync_binlog = 1
log_output=file
log_warnings = 2
log_error = /var/lib/mysql/log/error_log/error.log
```

#复制日志控制

```
relay_log=/var/lib/mysql/log/relay_log/mysql-relay-bin
relay_log_index=/var/lib/mysql/log/relay_log/mysql-relay-bin.index
#binlog-do-db = ocp
#replicate-ignore-db = information_schema
#log_slave_updates = 1
slave_parallel_workers=4
#read_only=1
##这三个参数是启用binlog/relaylog的校验，防止日志出错
#binlog_checksum = CRC32
#master_verify_checksum = 1
#slave_sql_verify_checksum = 1
##这两个是启用relaylog的自动修复功能，避免由于网络之类的外因造成日志损坏，主从停止
relay_log_purge = 1
relay_log_recovery = 1
##这两个参数会将master.info和relay.info保存在表中，默认是Myisam引擎，官方建议改为InnoDB
#master_info_repository = TABLE
#relay_log_info_repository = TABLE
```

#添加二进制日志

```
log_bin= /var/lib/mysql/log/binary_log/mysql-bin
binlog_format = ROW
binlog_row_image = minimal
binlog_cache_size = 8M
expire_logs_days = 10
max_binlog_cache_size = 3G
max_binlog_size = 1G
```

```
slow_query_log=1
```

```
long_query_time=1
slow_query_log_file=/var/lib/mysql/log/slow_query_log/slow.log
#log_queries_not_using_indexes=1
#log_throttle_queries_not_using_indexes=20
#log-slow-admin-statements=1
```

#Set General Log

```
general_log=0
general_log_file = /var/lib/mysql/log/general_log/general.log
```

#***** MyISAM Specific options *****

```
myisam_max_sort_file_size=20G
myisam_sort_buffer_size=128M
key_buffer_size=256M
read_buffer_size=1M
read_rnd_buffer_size=1M
sort_buffer_size=1M
join_buffer_size =1M
bulk_insert_buffer_size = 64M
myisam_repair_threads = 1
myisam_recover
query_cache_type=0
query_cache_size = 0
```

#***** INNODB Specific options *****

```
innodb_file_per_table=1
#innodb_force_recovery=1
innodb_data_home_dir=/var/lib/mysql/innodb_file/
innodb_data_file_path=ibdata1:10M:autoextend
innodb_log_group_home_dir=/var/lib/mysql/innodb_file/
innodb_log_files_in_group=2
innodb_log_file_size=1G
```

```
innodb_flush_log_at_trx_commit=2
innodb_open_files=50000
innodb_flush_method=O_DIRECT
innodb_log_buffer_size=16M
```

```
innodb_buffer_pool_size=6G    #该参数尽可能的大,物理内存的70-80% . 如16G内存可以设置12G
innodb_additional_mem_pool_size=16M
innodb_thread_concurrency=0
#文件IO的线程数(5.6变更)
innodb_read_io_threads = 16
innodb_write_io_threads = 8
innodb_buffer_pool_instances=6
innodb_max_dirty_pages_pct = 75
innodb_lock_wait_timeout = 120
innodb_change_buffering=all
innodb_change_buffer_max_size=25
innodb_purge_threads=1
innodb_purge_batch_size=300
innodb_io_capacity=3000
innodb_doublewrite=ON
innodb_use_native_aio=ON
#innodb_flush_neighbors=ON
#innodb_force_recovery=0
```

Dump 缓冲池数据

```
innodb_buffer_pool_dump_now = ON
innodb_buffer_pool_load_now = ON
innodb_buffer_pool_dump_at_shutdown = ON
innodb_buffer_pool_load_at_startup = ON
```

[mysqldump]

```
quick
max_allowed_packet = 64M
```

[mysql]

```
disable-auto-rehash
default-character-set = utf8
```

[myisamchk]

```
key_buffer_size = 24M
sort_buffer_size = 36M
read_buffer = 8M
```


write_buffer = 8M

八、安装 NTP

NTP配置文件/etc/ntp.conf

8.1 配置 NTP 服务器

```
driftfile /var/lib/ntp/drift
restrict default kod nomodify notrap nopeer noquery
restrict -6 default kod nomodify notrap nopeer noquery
restrict 127.0.0.1
restrict 10.5.0.0/16 #允许哪些服务器来同步
restrict -6 ::1
server 0.centos.pool.ntp.org iburst
server 1.centos.pool.ntp.org iburst
server 2.centos.pool.ntp.org iburst
server 3.centos.pool.ntp.org iburst
server 127.127.1.0 #本机作为server端，可提供NTP服务
fudge 127.127.1.0 stratum 10
includefile /etc/ntp/crypto/pw
keys /etc/ntp/keys
```

8.2 配置 NTP 客户端

```
driftfile /var/lib/ntp/drift
restrict default kod nomodify notrap nopeer noquery
restrict -6 default kod nomodify notrap nopeer noquery
restrict 127.0.0.1
restrict -6 ::1
```

```
server 0.centos.pool.ntp.org iburst #NTP服务器源1
server 1.centos.pool.ntp.org iburst #NTP服务器源2
server 2.centos.pool.ntp.org iburst #NTP服务器源3
server 3.centos.pool.ntp.org iburst #NTP服务器源4
includefile /etc/ntp/crypto/pw
keys /etc/ntp/keys
```

九 增加用户

```
#add hmsnc user
adduser hmsnc -G root
echo hm |passwd hmsnc --stdin
mkdir -p /home/hmsnc/update
chown hmsnc:hmsnc /home/hmsnc/update
cat > /etc/sudoers.d/hm <<EOF
hmsnc ALL=(ALL) NOPASSWD: ALL
EOF
```

十、配置 Telnet

```
#sed -i "s/disable\t\t= yes/disable\t\t= no/g" /etc/xinetd.d/telnet
#chkconfig xinetd on
sed -
i "s/auth [user_unknown/#auth [user_unknown/g" /etc/pam.d/login
for i in $(seq 1 10)
do
    echo $i >> /etc/securetty
done
#/etc/init.d/xinetd restart
```

十一、配置 Vsftp

```
#vsftp
chkconfig vsftpd on
sed -i "s/^/#/g" /etc/pam.d/vsftpd
cat >> /etc/pam.d/vsftpd << EOF
auth    sufficient    /lib64/security/pam_userdb.so    db=/etc/vsftpd/virtusers
account sufficient    /lib64/security/pam_userdb.so    db=/etc/vsftpd/virtusers
EOF
```

```
cat >/etc/vsftpd/vsftpd.conf <<EOF
anonymous_enable=YES
local_enable=YES
write_enable=YES
local_umask=022
anon_upload_enable=NO
anon_mkdir_write_enable=NO
dirmessage_enable=YES
xferlog_enable=YES
connect_from_port_20=YES
xferlog_file=/var/log/xferlog
xferlog_std_format=YES
idle_session_timeout=600
data_connection_timeout=120
nopriv_user=hmsnc
async_abor_enable=YES
ascii_upload_enable=YES
ascii_download_enable=YES
chroot_local_user=YES
ls_recurse_enable=NO
listen=YES
pam_service_name=vsftpd
userlist_enable=YES
```

```
tcp_wrappers=YES
anon_root=/home/hmsnc/update
guest_enable=YES
guest_username=hmsnc
virtual_use_local_privs=YES
user_config_dir=/etc/vsftpd/vconf
EOF
cat >/etc/vsftpd/virtusers <<EOF
hmsnc
hm
EOF
db_load -T -t hash -f /etc/vsftpd/virtusers /etc/vsftpd/virtusers.db
mkdir -p /etc/vsftpd/vconf/
```

```
cat > /etc/vsftpd/vconf/hmsnc <<EOF
local_root=/home/hmsnc
```

```
anonymous_enable=NO
write_enable=YES
local_umask=022
anon_upload_enable=NO
anon_mkdir_write_enable=NO
idle_session_timeout=600
data_connection_timeout=120
max_clients=100
max_per_ip=5
local_max_rate=50000
EOF
```

十二，NFS 配置

12.1 安装 NFS

```
#yum install nfs-utils
```

12.2 配置 NFS

```
/etc/exports  
/opt/public 10.0.1.0/24(rw,insecure,sync,all_squash,anonuid= 65534,anongid=65534)
```

/etc/exports 文件内容格式：

<输出目录> [客户端 1 选项（访问权限,用户映射,其他）] [客户端 2 选项（访问权限,用户映射,其他）]

选项说明

ro：共享目录只读；
rw：共享目录可读可写；
all_squash：所有访问用户都映射为匿名用户或用户组；
no_all_squash（默认）：访问用户先与本机用户匹配，匹配失败后再映射为匿名用户或用户组；
root_squash（默认）：将来访的 root 用户映射为匿名用户或用户组；
no_root_squash：来访的 root 用户保持 root 帐号权限；
anonuid=<UID>：指定匿名访问用户的本地用户 UID，默认为 nfsnobody（65534）；
anongid=<GID>：指定匿名访问用户的本地用户组 GID，默认为 nfsnobody（65534）；
secure（默认）：限制客户端只能从小于 1024 的 tcp/ip 端口连接服务器；
insecure：允许客户端从大于 1024 的 tcp/ip 端口连接服务器；
sync：将数据同步写入内存缓冲区与磁盘中，效率低，但可以保证数据的一致性；
async：将数据先保存在内存缓冲区中，必要时才写入磁盘；
wdelay（默认）：检查是否有相关的写操作，如果有则将这些写操作一起执行，这样可以提高效率；
no_wdelay：若有写操作则立即执行，应与 sync 配合使用；
subtree_check（默认）：若输出目录是一个子目录，则 nfs 服务器将检查其父目录的权限；
no_subtree_check：即使输出目录是一个子目录，nfs 服务器也不检查其父目录的权限，这样可以提高效率；

12.3 启动 NFS 服务

```
# service rpc-bind start
# service nfs start
# chkconfig rpc-bind on
# chkconfig nfs on
```

服务器端使用 `showmount` 命令查询 NFS 的共享状态

```
# showmount -e          //默认查看自己共享的服务，前提是要 DNS 能解析自己，不然容易报错
# showmount -a          //显示已经与客户端连接上的目录信息
```

12.4 挂载 NFS

客户端挂载 NFS 服务器中的共享目录

命令格式

```
# mount NFS 服务器 IP:共享目录 本地挂载点目录
```

```
# mount 10.0.1.108:/home/david/ /tmp/david/
```